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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/138,054	08/21/1998	RAMANATHAN RAMANATHAN	INTL-0084-US	3628

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07/15/2004

EXAMINER

VU, NGOC K

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 07/15/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/138,054

Applicant(s)

RAMANATHAN, RAMANATHAN

Examiner

Ngoc K. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-15,17,19-21,23,25-27,29-46 and 48-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 39-41,44,45,50 and 51 is/are allowed.
- 6) ☒ Claim(s) 1,4-11,14,15,17,19-21,23,25-27,29-31,33,35,37,42,43,46 and 48 is/are rejected.
- 7) ☒ Claim(s) 12,13,32,34,36,38 and 49 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/3/04 have been fully considered but they are not persuasive.

Applicant argues that Bray fails to disclose the data management module and the first transmitter module. This argument is not persuasive.

According to teaching of Bray of the record, an auto-negotiation unit 36 determines and selects which processing speed 100 Mb/s or 10 Mb/s the device 28 implements. It is noted that the device 28 has a data rate corresponding to the speed of operation of a link partner 22 on the network medium and has transmitters 46 and 62. The device 28 establishes multiple data paths of respectively different data transmission rates (see col. 3, lines 1-32 and figures 1-2).

With respect to claims 1 and 14, the device 28 contains "configuration information, e.g., data rate, specifying at least one predetermined transmission characteristic", e.g., speed 100 Mb/s or 10 Mb/s. The auto-negotiation unit 36 determines and selects the predefined transmission speed. That is auto-negotiation unit 36 is configured to determine and "modify" or adjust data flow based on the predefined data rate for transmission. Thus, Bray teaches the data management module (36) and the first transmitter module (transmitter 46 in device 28).

With respect to claim 6, applicant challenges the Official Notice and requests a prior art reference(s) that show a suggestion or motivation in the art. The references of Lindblad et al (US 6,225,993 B1) and Nandikonda et al (US 6,314,111 B1) and are hereby cited to support the Official Notice for the feature of API.

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With respect to claims 21 and 46, applicant argues that there is no teaching or suggestion in Bray regarding instructions to cause a computer to modify data flow based on a transmission characteristic of a transmitter that is identified by retrieved stored information. Examiner respectfully disagrees.

Similar interpretation with respect to claims 1 and 14 above, Bray teaches that the auto-negotiation 36 identifies and selects the predefined speed 100 Mb/s or 10 Mb/s for transmission by retrieving the stored information, e.g., data rate (see col. 3, lines 12-17). Since the auto-negotiation 36 in a transmission system is processed automatically, it must be understood that the transmission system embodied in computer program or software in order to automate the transmission system. Thus, Bray teaches instructions to cause a computer to modify data flow based on a transmission characteristic of a transmitter that is identified by retrieved stored information.

With respect to claims 10 and 15, applicant challenges the Official Notice and requests a prior art reference(s) that show a suggestion or motivation in the art. The references of Suzuki (US 5,790,170 A) and Fisk (US 3,691,295) are hereby cited to support the Official Notice for the feature of transmitting digital data and/or television video data.

Furthermore, limitations in claims 4, 5, 7-9, 11, 17, 19, 20, 23, 25-27, 29-31, 33, 35, 37, 42, 43 and 48 are addressed in the previous Office Action and are met by teaching of Bray of the record.

For the above reasons, it is believed that the rejections should be sustained.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4, 5, 7-9, 11, 14, 17, 19, 20, 21, 23, 25-27, 29-31, 33, 35, 37, 42, 43, 46 and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Bray (US 6,618,392 B1).

Regarding claim 1, Bray discloses a transmission system (see figures 1-2) comprising:

a data management module (36) capable of managing data flow;

a first transmitter module (46 in 28 – see figures 1-2) coupled to a transport medium (fiber optic cabling) and to the data management module (36), the transmitter module (46) to contain configuration information specifying at least one predefined transmission characteristic (46 in 28 having a data rate corresponding to the speed of operation of a link partner 22 on the network medium – see col. 1-11); and

at least an additional transmitter module (62 in 28 – see figures 1-2),

the data management module (36) to access the configuration information to determine the at least one predefined transmission characteristic and to modify data flow management based on the at least one predefined transmission characteristic (unit 36 determines and selects which processing speed 100Mb/s or 10Mb/s the device 28 implements. It is noted that the device 28 establishes multiple data paths of respectively different data transmission rates – see col. 3, lines 14-32),

wherein each transmitter module is associated with a different transport medium (for example, transmitter 46 is associated with fiber optic cabling, while transmitter 62 is associated with a UTP – see figures 1-2; col. 3, lines 17-22).

Regarding claim 4, Bray discloses that wherein the transmission characteristic of the first transmitter module varies over time (for example, transmission rate may be changed between 10Mb/s and 100Mb/s – see col. 3, lines 12-17).

Regarding claim 5, it is noted that there is an interface between the data management module and the first transmitter module (see col. 3, lines 1-11).

Regarding claims 7 and 8, Bray discloses that the incoming signal is monitored to determine whether the signal qualifies as a signal to be accepted by the receiver. If the incoming signal qualifies for assertion, it is preconditioned by a line equalizer that compensates for twisted pair unit lines, the lengths of which will vary with temperature and other conditions, and attenuate and degrade the input signal by different amounts (see col. 4, lines 9-17).

Regarding claim 9, Bray further discloses device 28 is configured either for 10 Mb/s data processing, or for 100 Mb/s data processing (see col. 3, lines 12-14).

Regarding claim 11, Bray discloses that the transport medium includes a medium from a cable transmission (see col. 3, lines 19-21).

Regarding claim 14, Bray discloses a transmission system comprising:

a data management program (32) capable of assembling data (multiplexing data – see figure 1);

a first transmitter (46 in 28 – see figures 1-2) capable of receiving data from the data management program and transmitting the data to a transport medium (fiber optic cabling – see col. 3, lines 12-21);

a combination interface (36 – see figure 1) between the data management program and the transmitter that enables the data management program and transmitter to negotiate the type of communication to be performed (unit 36 determines and selects which processing speed

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100Mb/s or 10Mb/s the device 28 implements. It is noted that the device 28 establishes multiple data paths of respectively different data transmission rates – see col. 3, lines 14-32); and

at least another transmitter (62 in 28 – see figure 2) coupled to at least another transport medium (UTP – see col. 3, lines 12-21); and

the first transmitter to contain configuration information specifying a characteristic of the transmitter (e.g., 100Mb/s transmission rate),

the data management program to access the configuration information of the first transmitter and to modify management of data flow based on the configuration information (unit 36 determines and selects which processing speed 100Mb/s or 10Mb/s the device 28 implements. It is noted that the device 28 establishes multiple data paths of respectively different data transmission rates – see col. 3, lines 14-32).

Regarding claim 17, Bray discloses that the transport media have different transmission characteristics (10 Mb/s and 100 Mb/s - see col. 3, lines 12-21).

Regarding claim 19, the data management program and the first transmitter to exchange information on a continuous basis (exchanging information relating transmission rate between the unit 36 and transmitter 48 in unit 28 as long as the network connection is not failed - see col. 3, lines 12-21).

Regarding claim 20, Bray discloses the transport media have different data flow rates (for example, transmission rates 10Mb/s for UTP and 100Mb/s for fiber optic cabling – see col. 3, lines 15-21).

Regarding claim 33, Bray discloses that configuration information to specify maximum transfer rate (transmission rate is fixed either 10Mb/s or 100Mb/s – see col. 3, lines 12-21).

Regarding claim 21, Bray discloses a computer-readable medium storing a program executable by a computer in a transmission system (see figures 1-2) including a first transmitter

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(46 in 28 – see figures 1-2) coupled to a transport medium (fiber optic cabling), the program comprising instruction for causing the computer to:

retrieve stored information to identify at least one transmission characteristic of the first transmitter (retrieving the stored data rate corresponding to the transmission rate of the transmitter 46 – see col. 3, lines 12-17);

modify data flow management based on the identified at least one transmission characteristic (changing the speed of operation, e.g., 100Mb/s based on the transmission rate – see col. 3, lines 12-17); and

identify a transmission characteristic of at least another transport medium over which data is to be transmitted by at least another transmitter (for example, identifying a transmission rate 10Mb/s of another transport medium, i.e., UTP, over which data is to be transmitted by another transmitter 62 – see figures 1-2; col. 3, lines 12-21).

Regarding claim 23, Bray discloses that the transport media have different transmission characteristics (10 Mb/s and 100 Mb/s - see col. 3, lines 12-21).

Regarding claims 25-26, Bray discloses the data management module and the first transmitter to exchange information relating to the transport medium's said at least transmission characteristic on a continuous basis (exchanging information relating transmission rate between the unit 36 and transmitter 48 in unit 28 as long as the network connection is not failed - see col. 3, lines 12-21).

Regarding claim 27, Bray discloses a method of managing data flow over a transport medium in an interactive transmission system, comprising:

accessing stored configuration information (retrieving the stored data rate corresponding to the transmission rate of the transmitter 46 – see col. 3, lines 12-17);

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identifying, based on the accessed configuration information, at least one transmission characteristic of a first transmitter used to transmit data over the transport medium (identifying transmission rate 100Mb/s of a transmitter 46 over fiber optic cabling – see figures 1-2; col. 3, lines 12-17);

modifying data flow management based on the identified at least one transmission characteristic (changing the speed of operation, e.g., 100Mb/s based on the transmission rate – see col. 3, lines 12-17); and

identifying a transmission characteristic of at least another transmitter used to transmit data over a different transport medium (for example, identifying a transmission rate 10Mb/s of another transport medium, i.e., UTP, over which data is to be transmitted by another transmitter 62 – see figures 1-2; col. 3, lines 12-21).

Regarding claim 29, Bray discloses that the transport media have different transmission characteristics (10 Mb/s and 100 Mb/s - see col. 3, lines 12-21).

Regarding claim 30, Bray discloses that that transmission characteristic of the transmitter is identified on a basis (as long as the network connection is not failed - see col. 3, lines 12-21).

Regarding claims 31, 35 and 37, Bray discloses that configuration information to specify maximum transfer rate (transmission rate is fixed either 10Mb/s or 100Mb/s – see col. 3, lines 12-21).

Regarding claim 46, Bray discloses a computer-readable medium storing a program executable by a computer in a transmission system (see figures 1-2) including a first transmitter (46 in 28 – see figures 1-2) coupled to a transport medium (fiber optic cabling), the program comprising instruction for causing the computer to:

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retrieve stored information to identify at least one transmission characteristic of the first transmitter (retrieving the stored data rate corresponding to the transmission rate of the transmitter 46 – see col. 3, lines 12-17);

modify data flow management based on the identified at least one transmission characteristic (changing the speed of operation, e.g., 100Mb/s based on the transmission rate – see col. 3, lines 12-17); and

cause the data management module and the transmitter to exchange information relating to the transport medium's said at least one transmission characteristic, wherein the data management module and the transmitter exchange information on a continuous basis (exchanging information relating transmission rate between the unit 36 and transmitter 48 in unit 28 as long as the network connection is not failed - see col. 3, lines 12-21).

Regarding claim 48, Bray discloses that configuration information to specify maximum transfer rate (transmission rate is fixed either 10Mb/s or 100Mb/s – see col. 3, lines 12-21).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bray (US 6,618,392 B1).

Regarding claim 6, Bray does not explicitly disclose API interface. Official Notice is taken that utilizing API interface for compatible communication between the different protocols in data

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communication system is well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Bray by including API interface for compatible communication between the different protocols.

Regarding claims 10 and 15, Bray discloses transmitting digital data over the transport medium (see col. 3, lines 22-24 and 63-65). Bray does not disclose transmitting television data. Official Notice is taken that it is well known in the art to transmit multimedia including television data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Bray by transmitting multimedia included television data in order to provide video for viewing.

Allowable Subject Matter

6. Claims 12, 13, 32, 34, 36, 38, and 49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 39-41, 44, 45, 50, and 51 are allowed.

Regarding claim 39, the prior of record fails to teach or suggest "wherein the configuration information is retrieved by the data management module at startup of the transmitter module or data management module".

Regarding claim 50, the prior of record fails to teach or suggest "wherein the configuration information comprises at least one of information to indicate if the transmitter module is able to assign priorities to data, and information to indicate if the transmitter module is able to perform bandwidth management".

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 703-306-5976. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



VIVEK SRIVASTAVA
PRIMARY EXAMINER

NV
June 29, 2004